

Application Number 10/730,878

Response to final Office Action mailed August 3, 2007

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): An implantable medical device comprising:

at least two interconnected modules, each of the modules comprising a respective one of at least two housings to house the respective modules; and

an overmold that at least partially encapsulates each of the housings, the overmold comprising a lead connection module configured to accept an external lead, wherein the external lead is separable from the lead connection module.

Claim 2 (Original): The implantable medical device of claim 1, wherein at least one module comprises a control module containing electronic components.

Claim 3 (Previously Presented): The implantable medical device of claim 1, wherein the overmold comprises a first material and a second material, and the lead connection module is embedded within the first material.

Claim 4 (Original): The implantable medical device of claim 3, wherein the first material comprises a non-elastomeric material.

Claim 5 (Original): The implantable medical device of claim 1, the lead connection module comprising at least one feed-through wire to electrically couple an external lead to an electronic component within the implantable medical device.

Claim 6 (Original): The implantable medical device of claim 1, wherein the lead connection module includes a mechanical lead securing mechanism.

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Claim 7 (Original): The implantable medical device of claim 6, wherein the mechanical lead securing mechanism comprises a tool-less mechanical lead securing mechanism.

Claim 8 (Original): The implantable medical device of claim 1, wherein the implantable medical device has a maximum thickness of between approximately 4 millimeters and approximately 8 millimeters.

Claim 9 (Currently Amended): An overmold for a modular implantable medical device that includes a plurality of modules, each of the modules comprising a respective housing to house the respective module, the overmold comprising:

- a first material configured to hold at least part of the housing of one of the modules;
- a second material coupled to the first material; and
- a lead connection module configured to accept an external lead, wherein the external lead is separable from the lead connection module, the lead connection module being embedded within the overmold.

Claim 10 (Original): The overmold of claim 9, wherein the first material comprises a non-elastomeric material.

Claim 11 (Original): The overmold of claim 9, wherein the second material comprises an elastomeric material.

Claim 12 (Original): The overmold of claim 9, wherein the second material comprises silicone.

Claim 13 (Previously Presented): The overmold of claim 9, wherein the lead connection module is embedded within the first material.

Claim 14 (Original): The overmold of claim 9, wherein the lead connection module is configured to receive an iso-diametric external lead.

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Claim 15 (Previously Presented): The implantable medical device of claim 1, wherein the housings are horizontally distributed at respective locations of the overmold, and separately encapsulated by the overmold.

Claim 16 (Currently Amended): An implantable medical device comprising:
at least two interconnected modules, each of the modules comprising a respective one of at least two housings to house the respective modules; and
an overmold that partially encapsulates each of the housings and defines a frame configured to fix a position of the at least two interconnected modules relative to one another, the overmold comprising a lead connection module configured to accept an external lead, wherein the external lead is separable from the lead connection module.

Claim 17 (Previously Presented): The implantable medical device of claim 16, wherein the overmold comprises an non-elastomeric material.

Claim 18 (Previously Presented): The implantable medical device of claim 16, wherein the overmold comprises an elastomeric material.

Claim 19 (Currently Amended): The implantable medical device of claim 1, wherein at least one of the at least two housings is ~~hermetically sealed~~ hermetic.

Claim 20 (Currently Amended): The overmold of claim 9, wherein at least one of the respective housings is ~~hermetically sealed~~ hermetic.